

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY


(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

REC'D 05 APR 2006

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Applicant's or agent's file reference SAH02661WO		FOR FURTHER ACTION		See Form PCT/PEA/416
International application No. PCT/GB2004/004205		International filing date (<i>day/month/year</i>) 01.10.2004		Priority date (<i>day/month/year</i>) 30.10.2003
International Patent Classification (IPC) or national classification and IPC H05K3/10, H05K3/00				
Applicant YAZAKI EUROPE LIMITED				
<p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 5 sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input type="checkbox"/> <i>sent to the applicant and to the International Bureau</i>) a total of sheets, as follows:</p> <p><input type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p>b. <input type="checkbox"/> <i>(sent to the International Bureau only)</i> a total of (indicate type and number of electronic carrier(s)) , containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p>				
<p>4. This report contains indications relating to the following items:</p> <p><input checked="" type="checkbox"/> Box No. I Basis of the opinion</p> <p><input type="checkbox"/> Box No. II Priority</p> <p><input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p><input type="checkbox"/> Box No. IV Lack of unity of invention</p> <p><input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p><input checked="" type="checkbox"/> Box No. VI Certain documents cited</p> <p><input type="checkbox"/> Box No. VII Certain defects in the international application</p> <p><input type="checkbox"/> Box No. VIII Certain observations on the international application</p>				
Date of submission of the demand 27.05.2005		Date of completion of this report 07.02.2006		
Name and mailing address of the international preliminary examining authority:  European Patent Office - P.B. 5818 Patentlaan 2 NL-2280 HV Rijswijk - Pays Bas Tel. +31 70 340 - 2040 Tx: 31 651 epo nl Fax: +31 70 340 - 3016		Authorized Officer Deconinck, E Telephone No. +31 70 340-		



**INTERNATIONAL PRELIMINARY REPORT
ON PATENTABILITY**

International application No.
PCT/GB2004/004205

Box No. I Basis of the report

1. With regard to the **language**, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
- ☐ This report is based on translations from the original language into the following language , which is the language of a translation furnished for the purposes of:
- ☐ international search (under Rules 12.3 and 23.1(b))
 - ☐ publication of the international application (under Rule 12.4)
 - ☐ international preliminary examination (under Rules 55.2 and/or 55.3)
2. With regard to the **elements*** of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report):*
- Description, Pages**
- 1-7 as originally filed
- Claims, Numbers**
- 1-9 as originally filed
- Drawings, Sheets**
- 1/3-3/3 as originally filed
- ☐ a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing
3. ☐ The amendments have resulted in the cancellation of:
- ☐ the description, pages
 - ☐ the claims, Nos.
 - ☐ the drawings, sheets/figs
 - ☐ the sequence listing *(specify):*
 - ☐ any table(s) related to sequence listing *(specify):*
4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
- ☐ the description, pages
 - ☐ the claims, Nos.
 - ☐ the drawings, sheets/figs
 - ☐ the sequence listing *(specify):*
 - ☐ any table(s) related to sequence listing *(specify):*
- * *If item 4 applies, some or all of these sheets may be marked "superseded."*

**INTERNATIONAL PRELIMINARY REPORT
ON PATENTABILITY**

International application No.
PCT/GB2004/004205

Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	1-8
	No: Claims	9
Inventive step (IS)	Yes: Claims	1-8
	No: Claims	
Industrial applicability (IA)	Yes: Claims	1-9
	No: Claims	

2. Citations and explanations (Rule 70.7):

see separate sheet

Box No. VI Certain documents cited

1. Certain published documents (Rule 70.10)

and / or

2. Non-written disclosures (Rule 70.9)

see separate sheet

Re Item V

Reasoned statement with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement

1. Reference is made to the following document/s/:
 - D1:** US-A-6 139 913 (VAN STEENKISTE ET AL) 31 October 2000 (2000-10-31)
 - D2:** PATENT ABSTRACTS OF JAPAN vol. 013, no. 312 (E-788), 17 July 1989 (1989-07-17) -& JP 01 084690 A (MATSUSHITA ELECTRIC WORKS LTD), 29 March 1989 (1989-03-29)

INDEPENDENT CLAIMS 1 AND 8:

2. The document **D1** (abstract; figures 1,2; column 3, lines 9-43) is regarded as being the closest prior art to the subject-matter of claim 1, and shows a cold-gas-dynamic spraying (CGDS) method for coating a metal layer on a substrate. The subject-matter of claim 1 differs from this known method in that a bonding layer is applied by CGDS before the electrically conductive layer material is deposited. The subject-matter of claim 1 is therefore new (**Article 33(2) PCT**).
- 2.1. This bonding layer is improving the adhesion of the electrically conductive material to the substrate. Although document **D2** (abstract) discloses a wiring pattern deposited on a substrate, the wiring pattern consisting of a bonding layer (anti-degradation layer,13) and a electrically conductive layer (copper,4) deposited on top of the bonding layer, thereby improving the adhesion of the conductive layer tot the substrate, the document **D2** does not disclose nor suggest in combination with document **D1** that these different layers can be deposited with a CGDS method. Therefore the subject-matter of claim 1 of the present application is considered as involving an inventive step (**Article 33(3) PCT**).
- 2.2. For the same reasons as above the subject-matter of independent claim 8 is novel and inventive. Claims 2-7 are dependent on claim 1 and as such also meet the requirements of the PCT with respect to novelty and inventive step.

**INTERNATIONAL PRELIMINARY
REPORT ON PATENTABILITY
(SEPARATE SHEET)**

International application No.

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INDEPENDENT CLAIM 9:

3. The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claim 9 is not new in the sense of **Article 33(2) PCT**.
- 3.1 Document **D1** (abstract; figure 1; column 3 lines 9-43) discloses (the references in parentheses applying to this document) an CDGS-apparatus (10) comprising: a drive mechanism, a cold gas-dynamic spraying device (34) and means for controlling the device to provide relative movement between the CGDS device and a substrate (column 3, lines 11-16).